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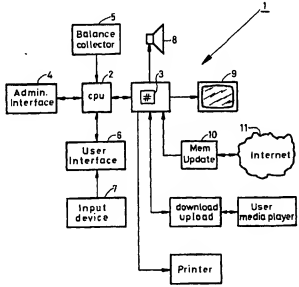
(54) Title: MULTIMEDIA JUKEBOX



(57) Abstract: A multimedia system (1) is described, which is capable of playing audio and simultaneously displaying graphics on one or more monitors (9). The graphics represent video clips associated with music or a song represented by the audio. For example through a modem Internet connection audio and/or video files may be updated. Information on new releases, artists tours and movie trailers are available for free in order to promote profitable use of the multimedia system (1).

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MULTIMEDIA JUKEBOX

The present invention relates to a multimedia system capable of playing audio.

The present invention also relates to software suitable for controlling the operation of the multimedia system according to the present invention.

Such a multimedia system embodied as an audio jukebox is well known. The known jukebox comprises audio files, compact discs, and/or records with music registered thereon, a coin collector, keyboard means for allowing the user to select preferred music, an amplifier and loudspeakers to hear the music, as well as a control unit for control of a sequence of events necessary for a proper operation of the jukebox.

It is an object of the present invention to provide an improved multimedia system, whose functional capabilities are extended.

Thereto the multimedia system according to the invention is characterised in that the multimedia system is also capable of simultaneously displaying graphics on one or more monitors.

It is an advantage of the multimedia system according to the invention that the inventor realised that although monitors for graphics display are known per se, ever since the early introduction of audio jukeboxes their development apart from the inclusion of electronic circuitry has virtually stopped. The reproduction of music and the simultaneous display of graphics, in particular graphics in the form of so called video clips, which video clips are associated with the music and songs, breathes new life in the development of multimedia systems in the direction of a multimedia jukebox. The multimedia system according to the

invention opens new ways of profitably exploiting these systems in cafes, such as Internet cafes, dances cafes, bars, gambling houses and generally and in all those places where jukeboxes used to be present.

An embodiment of the multimedia system according to the invention is characterised in that the multimedia system is provided with selection means for selection of audio files, or graphic files comprising audio and graphics respectively.
Advantageously apart from selection of audio files by the selection means also the graphic files or associated video clips may be selectable in an appropriate way, so that in particular audio and associated video can be heard and viewed at the same time.

A further embodiment of the multimedia system according to the invention is characterised in that the multimedia system is provided with a processor at least coupled to memory means for storage of the audio files and/or graphics files.
The processor may also be a central processor for control of the proper sequence of events necessary for controlling the basic and addition functions in the multimedia system. The memory means may comprise a permanent storage such as CDs, or ROM or the like, or for example re-registerable RAM or the like.

A preferred embodiment of the multimedia system according to the invention is characterised in that the multimedia system is provided with memory updating means for connection to some external update source.
This embodiment has the capability of being updated and supplemented with actual and recently appeared information such as music and graphics, so that the information

contained in the memory means of the multimedia system comprises the newest releases of audio and video, and other relevant information or control software concerned.

Another preferred embodiment of the multimedia system according to the invention is characterised in that the multimedia system is provided with external communication means capable of being connected to an external memory update source in the form of a network, such as the Internet.
It is an advantage of this embodiment that the newest releases and most recent information contained in the memory means may be downloaded automatically for example during the early morning when there is no public making use of the multimedia system. In that case no service or maintenance personnel is necessary keeping the multimedia files up to date.

Generally a further preferred embodiment of the multimedia system according to the invention is characterised in that the multimedia system is provided with a processor controlled user interface coupled to an input device, such as a keyboard or mouse for input selection and user control of the multimedia system.

A particular user friendly embodiment of the multimedia system according to the invention is characterised in that the multimedia system is provided with means for defining a play list comprising user selected audio with associated graphics to be displayed on the one or more monitors.

For ease of maintenance and in order to adjust the system features to what is advisable on the site concerned the system is characterised in that the multimedia system is provided with a processor controlled service/administrator

interface for configuring control of the multimedia system.

For an effective exploitation the multimedia system according to the invention is further characterised in that the multimedia system is provided with a balance collector, such as a coin collector or a credit card device for only allowing full operation of the multimedia system in case the user created a sufficient financial balance.

A variety of embodiments is possible with embodiments of the multimedia system according to the invention, which are characterised in that the multimedia system is provided with ancillary means for access, display, download, and/or printing of various information, such as tour information of artists or groups, information about old or new releases of songs, song texts, karaoke lyrics, albums, video clips, Web-sides and the like, music information included in music encyclopaedia and the like, information on movie trailers, and further music, artists and video clips related kinds of information.

At present the multimedia system according to the invention and its operation will be elucidated further together their its additional advantages, while reference is being made to the appended drawing, wherein similar components are being referred to by means of the same reference numerals. In the drawing:
Fig. 1 shows a block schematic view of a possible embodiment of the hardware structure of the multimedia system according to the invention, and
Fig. 2 shows a possible navigational structure of a menu schema for software implementation in the multimedia system of fig. 1.

Fig. 1 shows a block schematic view of some essential

functional blocks for operating a multimedia system 1. The system 1 comprises a Central Processing Unit or CPU 2 controlling the main operational functions in the system 1. The system 1 further comprises memory means 3 for possibly separate storage of programming software, such as for the CPU 2 or any other of the functional blocks to be described hereafter, and data files, such as audio files, video files and possibly effect files containing data for additional light or sound effects on or around the multimedia system 1. The audio data contained in the audio files represent sound, generally music, and the video data contained in the video files represent video, possibly video effects such as video clips which are generally associated with the music.

The system 1 comprises an administrative interface 4 coupled to the CPU 2 for configuring control of the multimedia system 1. Examples thereof are settings related to the internal and external system communication and internal request handling. The multimedia system 1 is also provided with a balance collector, generally indicated 5, such as a coin collector or a credit card device for only allowing full operation of the multimedia system in case the user created a sufficient financial balance.

In addition the system 1 comprises a processor controlled user interface 6 coupled to an input/selection device 7 to facilitate input and/or selection by a user of the system 1. User input may for example take place by means of a keyboard, touch screen, mouse or the like. The user input allows the user to navigate through several menus in order to compose and define a play list comprising a listing of user selected music and associated video graphics/clips. The music can be heard through internal and/or external loudspeakers 8, while the video graphics can be seen on one or more monitors 9 - one monitor thereof may function as a

system monitor with or without touch screen features to allow user input and display of the several possible menu choices to be explained hereafter.

An important aspect of the multimedia system 1 concerns its ability to update the memory means 3 by means of memory update means 10, which means are coupled to an external update source 11. The external update source 11 may be an external audio and/or video source, such as a CD, video LP, a tape registration, or some external memory containing the newest audio and/or video releases. The memory update means 10 may be coupled to a modem (not shown) in order to download the actual data from certain selected WEB-sides or EMAIL-boxes on the Internet.

Fig. 2 shows a possible navigational structure of a menu schema for software implementation in the multimedia system 1. Starting form the Main Menu, sub menus or lists may be entered. The sub menus or lists as shown are: Music Box, Video Box, Tour Info, New Releases, Movie Trailer, Music Encyclopaedia. For reasons of clarity and simplicity of programming the music and video selections are separated. However their basic approach is similar. When after donation of sufficient balance for example Music Box is selected by the user the three next choices are: Artist List, Genre List and Search. From for example Artist List an album may be selected in order to finally select the wanted track to put on the play list as a selected item. Similarly after Video Box selection a Search may be performed to try to identify a wanted video clip to put on the play list as a play list item, generally with its associated music. Of course the play list may be amended by deletion of items and inclusion of other items.

In order to attract potential users of the multimedia

system 1 a sufficient financial balance may be needed only for operating the Music Box menu and the Video Box menu. This feature may be set by means of the administrative part of interface 4. The other 4 above mentioned menus may then be entered and manipulated for free. For example Tour Info may be entered by the user such that information comes available about time and place of a next tour or appearance of a selected artist or band. In New Releases info about expected or recent music or video clip releases can be viewed or heard, possibly partly. Or in Movie Trailer catching parts of new movies can heard or viewed. In Music Encyclopaedia multimedia or artists information can be looked for. In addition the multimedia system 1 may provided with ancillary means such as for access, display, download, upload and/or printing of various information. Examples of such downloadable or printable information include: latest tour information of artists or groups, information about old or new releases of songs, song texts, karaoke lyrics, albums, video clips, Web-sides and the like, and further music, songs, artists, bands and video clips related kinds of information.

Whilst the above has been described with reference to essentially preferred embodiments and best possible modes it will be understood that these embodiments are by no means to be construed as limiting examples of the devices concerned, because various modifications, features and combination of features falling within the scope of the appended claims are now within reach of the skilled person.

CLAIMS

1. A multimedia system (1) capable of playing audio, characterised in that the multimedia system (1) is also capable of simultaneously displaying graphics on one or more monitors (9).

2. The multimedia system (1) according to claim 1, characterised in that the graphics represent video clips associated with music or a song represented by the audio.

3. The multimedia system (1) according to claim 1 or 2, characterised in that the multimedia system (1) is provided with selection means (7) for selection of audio files, or graphic files comprising audio and graphics respectively.

4. The multimedia system (1) according to one of the claims 1-3, characterised in that the multimedia system (1) is provided with a processor (2) at least coupled to memory means (3) for storage of the audio files and/or graphics files.

5. The multimedia system (1) according to one of the claims 1-4, characterised in that the multimedia system (1) is provided with memory updating means (10) for connection to some external update source (11).

6. The multimedia system (1) according to one of the claims 1-5, characterised in that the multimedia system (1) is provided with external communication means capable of being connected to an external memory update source (11) in the form of a network, such as the Internet.

7. The multimedia system (1) according to one of the

claims 1-6, characterised in that the multimedia system (1) is provided with a processor controlled user interface (6) coupled to an input device (7), such as a keyboard or mouse for input selection and user control of the multimedia system (1).

8. The multimedia system (1) according to claim 7, characterised in that the multimedia system (1) is provided with means for defining a play list comprising user selected audio with associated graphics to be displayed on the one or more monitors (9).

9. The multimedia system (1) according to one of the claims 1-8, characterised in that the multimedia system (1) is provided with a processor controlled service/administrator interface (4) for configuring control of the multimedia system (1).

10. The multimedia system (1) according to one of the claims 1-9, characterised in that the multimedia system (1) is provided with a balance collector (5), such as a coin collector or a credit card device for only allowing full operation of the multimedia system (1) in case the user created a sufficient financial balance.

11. The multimedia system (1) according to one of the claims 1-10, characterised in that the multimedia system (1) is provided with ancillary means for access, display, download, upload and/or printing of various information, such as tour information of artists or groups, information about old or new releases of songs, song texts, karaoke lyrics, albums, video clips, Web-sides and the like, music information included in music encyclopaedia and the like, information on movie trailers, and further music, songs, artists, bands and video clips related kinds of

information.

12. Software suitable for controlling the operation of the multimedia system (1) according to one of the claims 1-11.

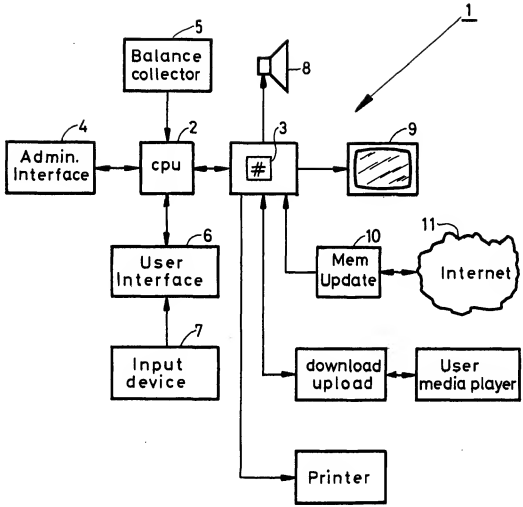
1
5
Balance collector
8
4
Admin. Interface
2
cpu
3
#
9
6
User Interface
10
Mem Update
11
Internet
7
Input device
download upload
User media player
Printer

FIG.1

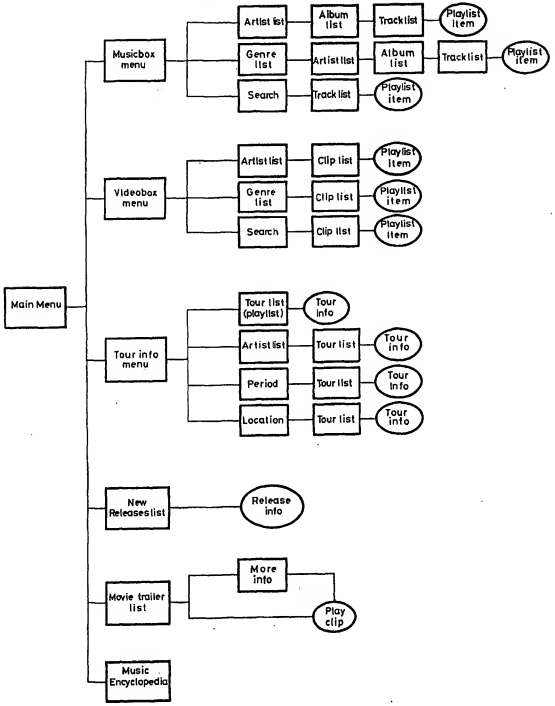
Main Menu
Musicbox menu
Artist list
Genre list
Search
Album list
Artist list
Track list
Album list
Track list
Track list
Playlist item
Playlist item
Playlist item
Playlist item
Videobox menu
Artist list
Genre list
Search
Clip list
Clip list
Clip list
Playlist item
Playlist item
Playlist item
Tour info menu
Tour list (playlist)
Artist list
Period
Location
Tour info
Tour list
Tour list
Tour list
Tour info
Tour info
Tour info
New Releases list
Release info
Movie trailer list
More info
Play clip
Music Encyclopedia

FIG. 2

INTERNATIONAL SEARCH REPORT

International Application No
PCT/NL 01/00404

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G11B27/00 G07F17/30 G07F17/16 G06F17/60 G06F17/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G11B G07F G06F H04H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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X	GB 2 193 420 A (PETYARD LIMITED) 3 February 1988 (1988-02-03) page 1, line 43 -page 2, line 6	1-9
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X	EP 0 982 695 A (NSM AG) 1 March 2000 (2000-03-01) the whole document	1-7,9,12
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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

* Special categories of cited documents :

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'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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'&' document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
19 April 2002	29/04/2002

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Daalmans, F

Form PCT/ISA/210 (second sheet) (July 1992)

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